

# PATENT COOPERATION TREATY


## PCT

### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

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Applicant's or agent's file reference K 2BE62/HL/1		<b>FOR FURTHER ACTION</b>		See Form PCT/PEA/416
International application No. PCT/NL2004/000541		International filing date (day/month/year) 28.07.2004		Priority date (day/month/year) 05.08.2003
International Patent Classification (IPC) or national classification and IPC E04F15/04				
Applicant NIEGEL PROFIEL-OMMANDELING B.V. et al.				
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> sent to the applicant and to the International Bureau) a total of sheets, as follows:</p> <p style="margin-left: 40px;"><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p style="margin-left: 40px;"><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>				
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the International application</p>				
Date of submission of the demand  06.06.2005		Date of completion of this report  12.12.2005		
Name and mailing address of the international preliminary examining authority:  European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tlx 31 651 epo nl Fax: +31 70 340 - 3016		Authorized Officer  Severens, G  Telephone No. +31 70 340-3360		



**INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITY**

International application No.  
PCT/NL2004/000541

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**Box No. I Basis of the report**

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1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
  - ☐ publication of the international application (under Rule 12.4)
  - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements\*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):*

**Description, Pages**

1-13 as originally filed

**Claims, Numbers**

1-13 filed with telefax on 05.12.2005

**Drawings, Sheets**

1/2, 2/2 as originally filed

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages
  - ☐ the claims, Nos.
  - ☐ the drawings, sheets/figs
  - ☐ the sequence listing *(specify):*
  - ☐ any table(s) related to sequence listing *(specify):*
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages
  - ☐ the claims, Nos.
  - ☐ the drawings, sheets/figs
  - ☐ the sequence listing *(specify):*
  - ☐ any table(s) related to sequence listing *(specify):*

\* If item 4 applies, some or all of these sheets may be marked "superseded."

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**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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**1. Statement**

Novelty (N)	Yes: Claims	1-13
	No: Claims	
Inventive step (IS)	Yes: Claims	1-13
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-13
	No: Claims	

**2. Citations and explanations (Rule 70.7):**

**see separate sheet**

**Re Item V**

**Reasoned statement with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement**

- 1.1 DE-U-20300306 (D1) discloses, with reference to fig. 4, a covering for arranging on a ground surface, in particular a floor, comprising:
- at least two parallel form-retaining covering parts (1, 2) which are mutually connected along adjacent side edges and which have a backing side (27) directed toward the ground surface and a visual side (26) remote there from, wherein the two side edges take a step-like form with an inner and an outer edge segment such that the first covering part (1) has a protruding backing side (32) and the second covering part (2) has an overhanging visual side (36),
  - which covering parts (1,2) are provided with co-acting coupling elements (33,38) placed along the side edges, wherein the coupling element (33) of the first covering part (31) is a groove which is formed in the protruding backing side and at least open to the visual side, and the coupling element of the second covering part (2) forms tongue extending from the overhanging visual side at least to the ground surface, which groove and tongue each have an at least partly curved profile, and wherein the groove undercuts the inner edge segment of the first covering part and the tongue protrudes beyond the outer edge segment of the second covering part,
  - wherein each covering part is constructed from a relatively thick base layer forming the backing side and, connected thereto, a top layer (28) forming the visual side (26), and the coupling elements are formed in the base layer, wherein the groove and the tongue each form profiles complementary (see fig. 4) to each other whereby a form-fitting connection between the covering parts can be realised.
- 1.2 The subject-matter of claim 1 therefore differs from this known covering in that 1) the undercut of the groove and the part of the tongue protruding beyond the edge each have an at least partly chamfered profile and 2) wherein the outer edge segment of the first covering part and the inner edge segment of the second covering part define a gap in the mutually connected position of the covering parts.

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(SEPARATE SHEET)**

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The use of a chamfered profile 1) and a gap 2) at the underside of the covering is suggested in DE-U-20010913. The chamfered profile is however used in order to improve the connection between the two covering parts, where the connection is improved by a cooperation of the surfaces 8 and 10 (cf. fig. 2) and not in order to facilitate the production process.

The subject-matter of claim 1 is therefore new and inventive (Article 33(1) PCT). A similar reasoning applies mutatis mutandis for independent claim 9 (covering part for use in a covering as claimed in claims 2 and 5).

- 1.3 Since the covering according to claim 1 is new and inventive, the method claim for mutually connecting the covering parts is also considered to be new and inventive (Article 33(1) PCT)
2. Claims 2-8, 10, 12 and 13 are dependent on either independent claims 1, 9 or 11 and as such meet the requirements of the PCT in respect of novelty and/or inventive step.
3. Present claims 1-13 are considered to be industrially applicable and therefore meet the criteria of Article 33(4) PCT.

International application PCT/NL2004/000541  
enclosure no letter dated 5 December 2005

### New claims

1. Covering (2) for arranging on a ground surface  
(1), in particular a floor, comprising:

at least two parallel form-retaining covering parts  
(4) which are mutually connected along adjacent side edges  
5 (5,6) and which have a backing side (13) directed toward the  
ground surface (1) and a visual side (14) remote therefrom,  
wherein the two side edges (5,6) take a step-like form with  
an inner (5i,6i) and an outer (5o,6o) edge segment such that  
the first covering part (4) has a protruding backing side  
10 (13) and the second covering part (4) has an overhanging  
visual side (14),

which covering parts (4) are provided with co-acting  
coupling elements (9,10) placed along the side edges (5,6),  
wherein the coupling element (9) of the first covering part  
15 (4) is a groove which is formed in the protruding backing  
side (13) and at least open to the visual side (14), and the  
coupling element (10) of the second covering part (4) forms a  
tongue extending from the overhanging visual side (14) at  
least to the ground surface (1), which groove (9) and tongue  
20 (10) each have an at least partly curved profile, and wherein  
the groove (9) undercuts the inner edge segment (5i) of the  
first covering part (4) and the tongue (10) protrudes beyond  
the outer edge segment (6o) of the second covering part (4),

wherein the undercut (21) of the groove (9) and the  
25 part (22) of the tongue (10) protruding beyond the edge (6o)  
each have an at least partly chamfered profile, and wherein  
the outer edge segment (5o) of the first covering part (4)  
and the inner edge segment (6i) of the second covering part

(4) define a gap (24) in the mutually connected position of the covering parts (4),

wherein each covering part (4) is constructed from a relatively thick base layer (15) forming the backing side and, connected thereto, a top layer (16) forming the visual side (14), and the coupling elements (9,10,11,12) are formed in the base layer (15), characterized in that the groove (9) and the tongue (10) each form profiles complementary to each other whereby a form-fitting connection between the covering parts (4) can be realized.

2. Covering (2) as claimed in claim 1, characterized in that the inner edge segment (51) of the first covering part (4) and the outer edge segment (60) of the second covering part (4) run substantially transversely of the visual side (14) of the relevant covering part (4).

3. Covering (2) as claimed in claim 1 or 2, characterized in that the at least partly curved profile forms a segment of a circle.

4. Covering (2) as claimed in any of the foregoing claims, characterized in that a chamfered surface (23) is defined between the visual side (14) and the side edge (5,6) of at least one of the covering parts (4).

5. Covering (2) as claimed in any of the foregoing claims, characterized in that each covering part (4) has two parallel step-like side edges (5,6), the one (5) of which is embodied with the protruding backing side (13) with groove (9), and the other (6) with the overhanging visual side (14) with tongue (10).

6. Covering (2) as claimed in claim 5, characterized in that each covering part (4) has two mutually parallel end edges (7,8) which enclose an angle with the side edges (5,6) and which are provided with secondary coupling elements (11,12).

7. Covering (2) as claimed in claim 6, characterized in that the two end edges (7,8) also take a step-like form such that the one covering part (4) has a protruding backing side (13) and the other covering part (4) has an overhanging visual side (14), the secondary coupling element (11) of the one covering part (4) is a recess formed on the top of the protruding backing side (13), and the secondary coupling element (12) of the other covering part (4) is a protrusion formed under the overhanging visual side (14).

8. Covering (2) as claimed in any of the foregoing claims, characterized in that the top layer (16) is formed from a high-grade type of wood, and has a thickness of at least 1 mm, preferably at least 2.5 mm and most preferably in the order of 4 mm.

9. Covering part (4) for use in a covering (2) as claimed in claims 1 and 5, said covering part (4) having a backing side (13) to be directed toward a ground surface (1) and a visual side (14) remote therefrom, said covering part (4) further having two parallel side edges (5,6) which each take a step-like form with an inner (5i,6i) and an outer (5o,6o) edge segment such that the covering part (4) has a protruding backing side (13) along a first one (5) of the side edges (5,6) and an overhanging visual side (14) along the other, second side edge (6).

said covering part (4) being provided with co-acting coupling elements (9,10) placed along the respective side edges (5,6), wherein the coupling element (9) along the first side edge (5) is a groove which is formed in the protruding backing side (13) and at least open to the visual side (14), and the coupling element (10) along the second side edge (6) forms a tongue extending from the overhanging visual side (14) at least to the ground surface (1), which groove (9) and tongue (10) each have an at least partly curved profile, and



wherein the groove (9) undercuts the inner edge segment (51) of the first side edge (5) and the tongue (10) protrudes beyond the outer edge segment (60) of the second side edge (6), and said covering part (4) being constructed from a relatively thick base layer (15) forming the backing side and, connected thereto, a top layer (16) forming the visual side (14), the coupling elements (9,10,11,12) being formed in the base layer (15), wherein the undercut (21) of the groove (9) and the part (22) of the tongue (10) protruding beyond the edge (60) each have an at least partly chamfered profile, and wherein the outer edge segment (50) of the first side edge (5) and the inner edge segment (61) of the second side edge (6) are dimensioned such as to define a gap (24) in the mutually connected position of two of these covering parts (4),

characterized in that the groove (9) and the tongue (10) each form profiles complementary to each other whereby a form-fitting connection between two of these covering parts (4) can be realized.

10. Covering part (4) as claimed in claim 9, characterized in that the top layer (16) is formed from a high-quality material, in particular a high-grade type of wood, and has a thickness of at least 1 mm, preferably at least 2.5 mm and most preferably in the order of 4 mm.

11. Method for mutually connecting at least two covering parts (4) as claimed in claim 9 or 10, at least one (4) of which is already arranged on a ground surface (1), comprising the steps of:

a) orienting a side edge (6) of the second covering part (4) for connecting to the first, already arranged covering part (4) substantially parallel to a free side edge (5) of the first covering part (4).

b) moving the second covering part (4) at a distance above the ground surface (1) to the side edge (5) of the first covering part (4),

5 c) rotating the second covering part (4) about an axis parallel to the side edge (6) thereof,

d) placing the tongue (10) of the second covering part (4) at an angle into the groove (9) of the first covering part (4), and

10 e) with forming of the connection, lowering the second covering part (4) onto the ground surface (1) by rotating it in the opposite direction.

12. Method as claimed in claim 11, characterized in that after connection thereof the second covering part (4) is displaced parallel to the side edge (5,6) relative to the  
15 first covering part (4).

13. Method as claimed in claim 11 or 12, characterized in that after the first and second covering parts (4) have been mutually connected a third covering part (4) is arranged in line with the second covering part (4),  
20 which third covering part (4) is attached by connecting a side edge (6) thereof to the first covering part (4), and an end edge (8) thereof to the second covering part (4).